

Handbook of
Image and Video Processing, Second Edition

图像与视频 处理手册 (下册)

(第二版) (英文版)

[美] Alan Bovik 编著



电子工业出版社

Publishing House of Electronics Industry

<http://www.phei.com.cn>

图像与视频处理手册

(第二版) (英文版)

(下册)

Handbook of Image and Video Processing

Second Edition

[美] Alan Bovik 编著

电子工业出版社

Publishing House of Electronics Industry

北京 · BEIJING

内 容 简 介

本书介绍了图像和视频处理方面的基本原理、主要技术和典型应用,相关的内容包括图像与视频的增强和恢复,分类和分割,图像边缘检测,图像处理算法,图像压缩、存储、重取和通信,以及图像处理的应用。全书按内容聘请有关专家编写,涉及范围广、内容新、质量高,反映了最新的研究成果。本书的下册主要针对图像压缩、视频压缩、图像与视频获取、图像与视频的存取和通信、图像处理的应用等内容进行了深入的介绍。

本书可作为学习图像和视频处理课程的本科生、研究生的教材与参考用书,并且对于从事图像和视频方面研究的人员也是一本很好的参考材料。

Handbook of Image and Video Processing, Second Edition

Alan Bovik

ISBN: 0-12-119792-1

Copyright ©2005 by Elsevier. All rights reserved.

Authorized English language reprint edition published by the Proprietor.

ISBN: 981-259-629-1.

Copyright ©2006 by Elsevier(Singapore) Pte Ltd. All rights reserved.

Printed in China by Publishing House of Electronics Industry under special arrangement with Elsevier (Singapore) Pte Ltd.

This edition is authorized for sale in China only, excluding Hong Kong SAR and Taiwan. Unauthorized export of this edition is a violation of the Copyright Act. Violation of this Law is subject to Civil and Criminal Penalties.

本书英文影印版由 Elsevier (Singapore) Pte Ltd. 授权电子工业出版社在中国大陆境内独家发行。本版权限在中国境内(不包括香港特别行政区及台湾)出版及标价销售。未经许可出口,视为违反著作权法,将受法律制裁。

版权贸易合同登记号 图字: 01-2006-0901

图书在版编目(CIP)数据

图像与视频处理手册. 下册 = Handbook of Image and Video Processing, Second Edition: 第2版

(美)博维克(Bovik, A.)著. - 影印本. - 北京:电子工业出版社, 2006.3

ISBN 7-121-02302-4

I. 图… II. 博… III. ①图像处理-手册-英文 ②视频信号-信号处理-手册-英文

IV. ①TN911.73-62 ②TN941.1-62

中国版本图书馆CIP数据核字(2006)第012209号

责任编辑:冯小贝

印 刷:北京市天竺颖华印刷厂

出版发行:电子工业出版社

北京市海淀区万寿路173信箱 邮编:100036

经 销:各地新华书店

开 本:787×980 1/16 印张:46 字数:1030千字 彩插:8页

印 次:2006年3月第1次印刷

定 价:89.00元

凡购买电子工业出版社的图书,如有缺损问题,请向购买书店调换;若书店售缺,请与本社发行部联系。联系电话:(010)68279077。质量投诉请发邮件至 zltts@phei.com.cn, 盗版侵权举报请发邮件至 dbqq@phei.com.cn。

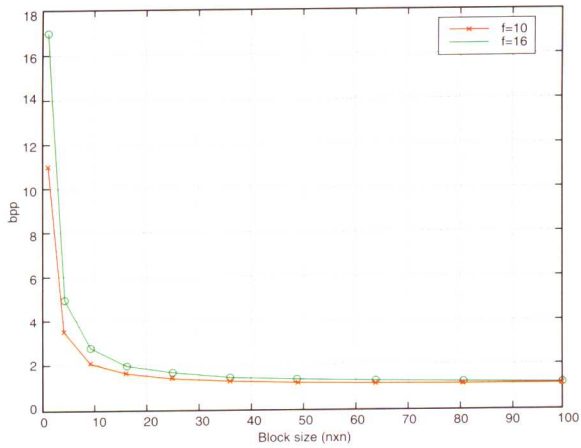


Figure 5.2.4



Original Image



Encoded at 1.89 bpp

Figure 5.2.6

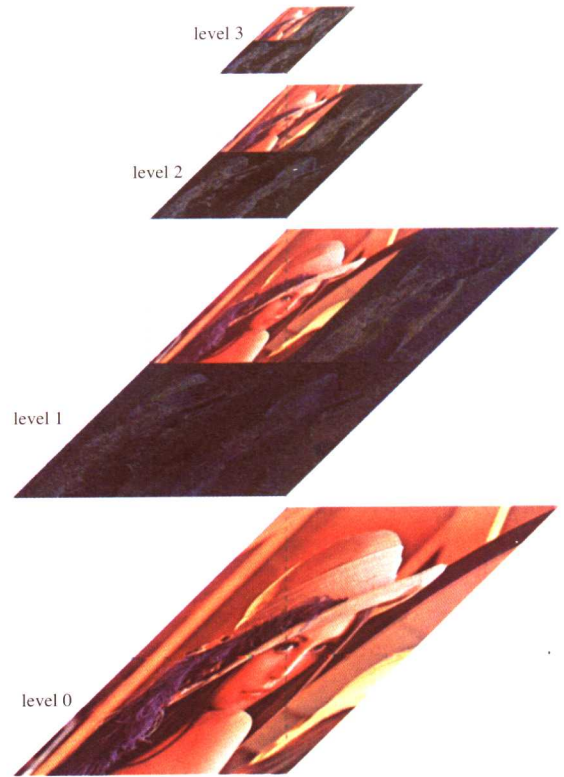


Figure 5.4.1



Figure 5.5.13



Figure 5.4.2

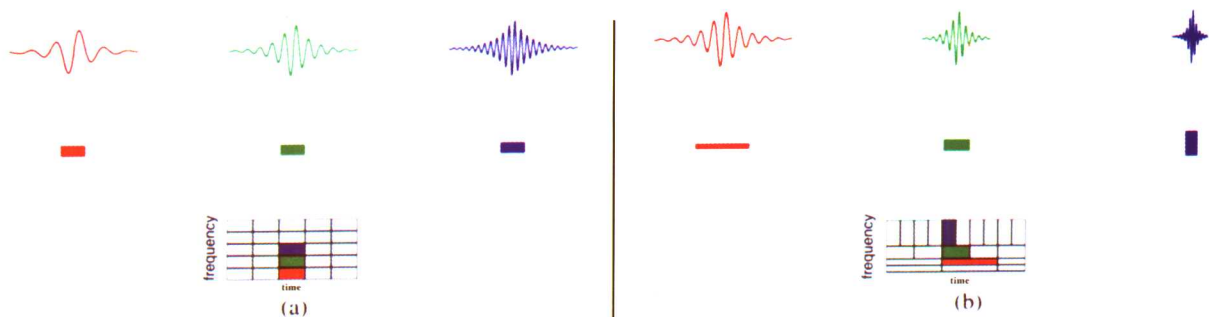


Figure 5.4.3

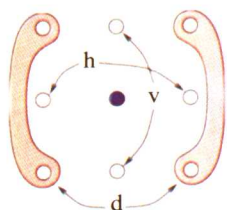


Figure 5.5.17



Figure 6.5.17



Figure 6.2.20



Figure 6.2.21

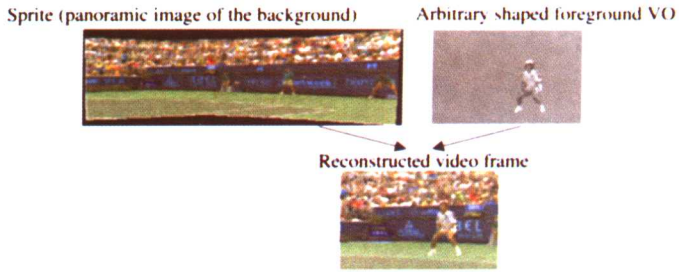


Figure 6.5.7



Digital Camera



3-G Cellular Phone



Digital Camcorder



Portable Video Conferencing



WebPAD



Security Camera



PDA's

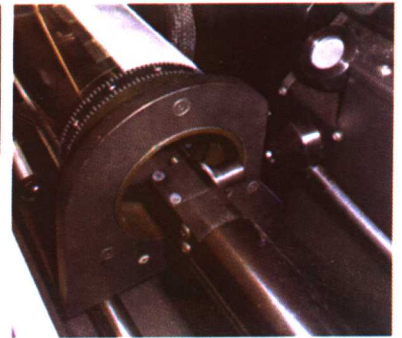


eBook

Figure 6.6.1



(a)



(b)

Figure 7.1.1

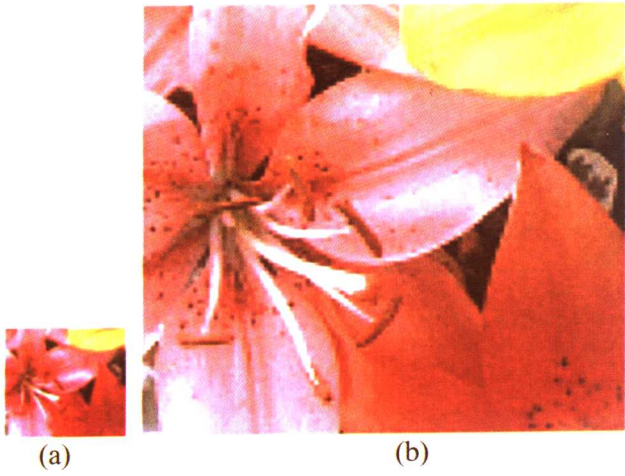


Figure 7.1.11



Figure 7.1.13



Figure 7.1.19



Figure 7.1.23

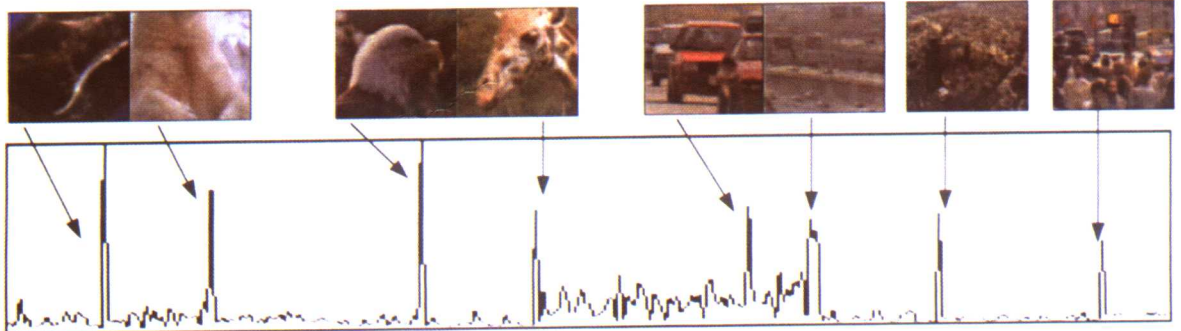


Figure 9.1.2

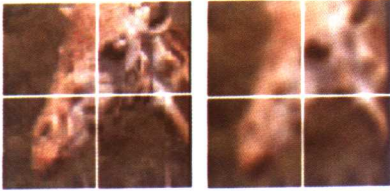


Figure 9.1.1

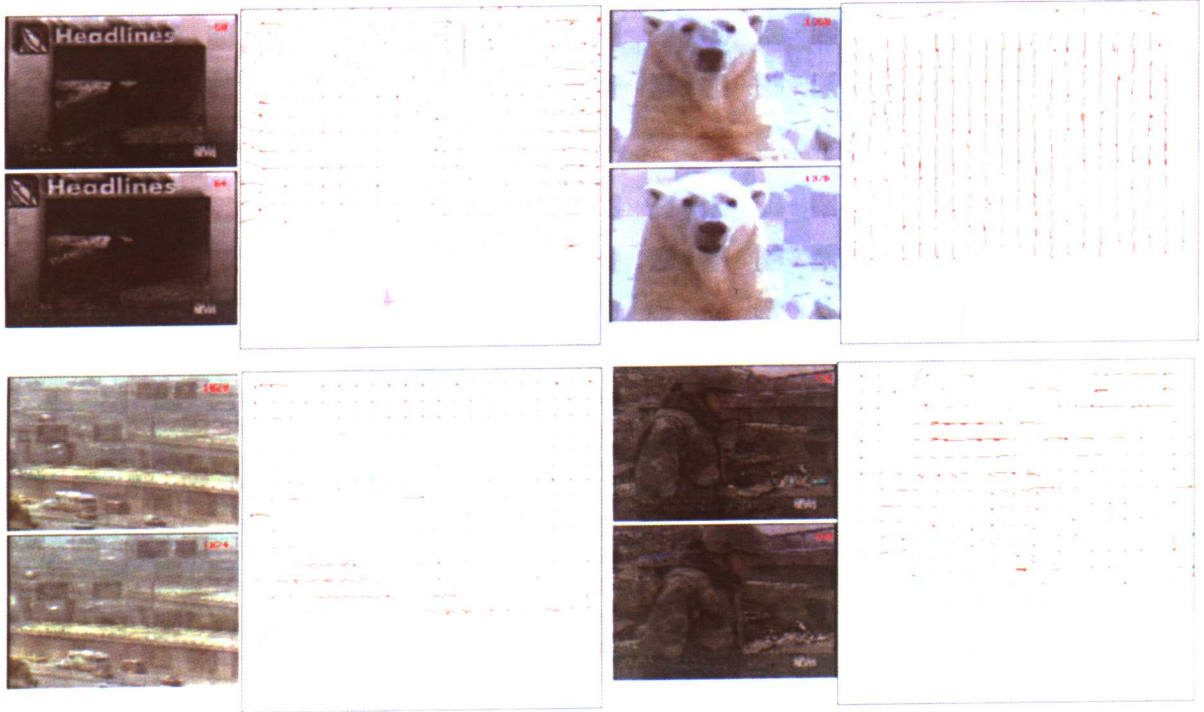


Figure 9.1.3

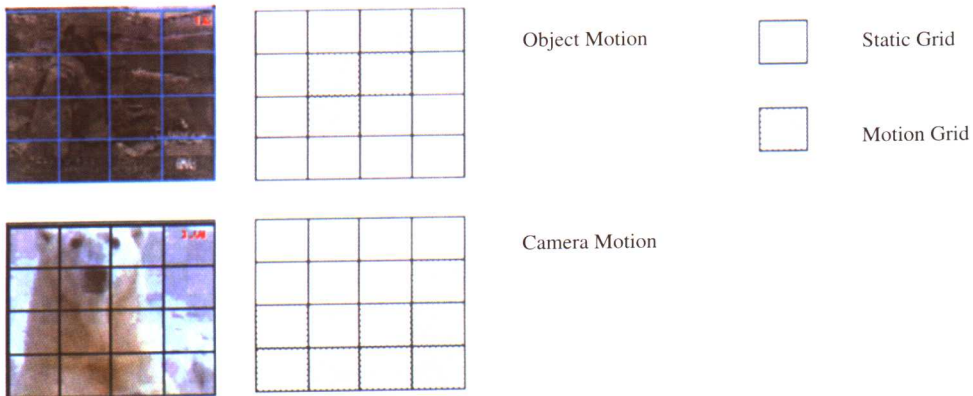


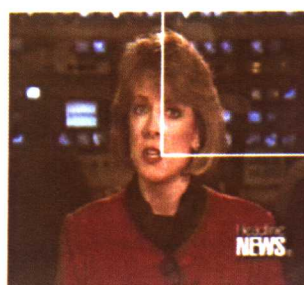
Figure 9.1.4



Figure 9.1.5



Figure 9.1.6



Frame t



Frame $t+T$

Figure 9.1.8



Figure 9.1.9

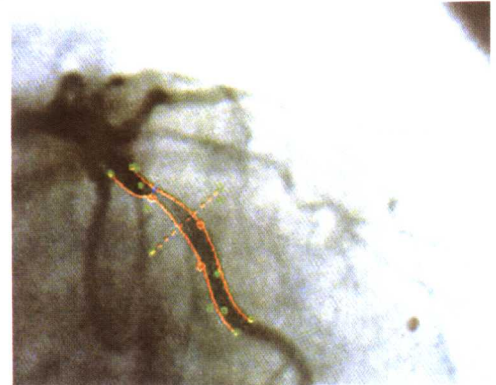
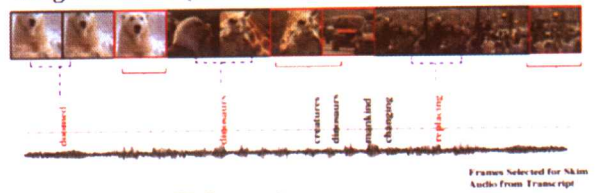
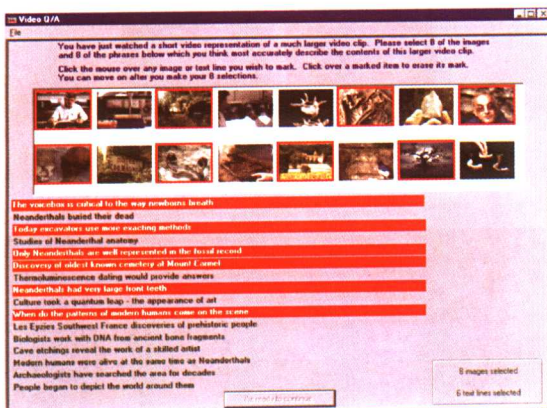


Figure 1 consists of two panels. The left panel is a cross-sectional IVUS image of a coronary artery. It shows a central lumen, surrounded by a core, which is further surrounded by plaque. The outermost layer is labeled as the adventitia. A green arrow points to the media. The right panel is a longitudinal IVUS image. It shows the IVUS catheter core at the top, the stent in the middle, and the IVUS transducer at the bottom.

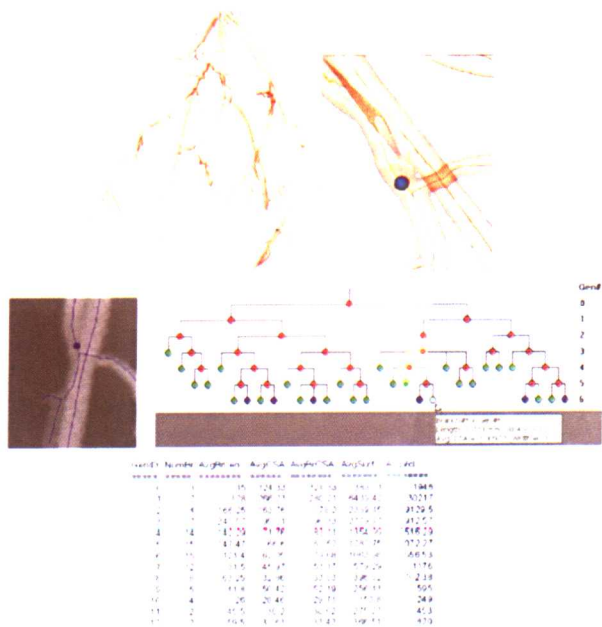


Figure 10.3.6

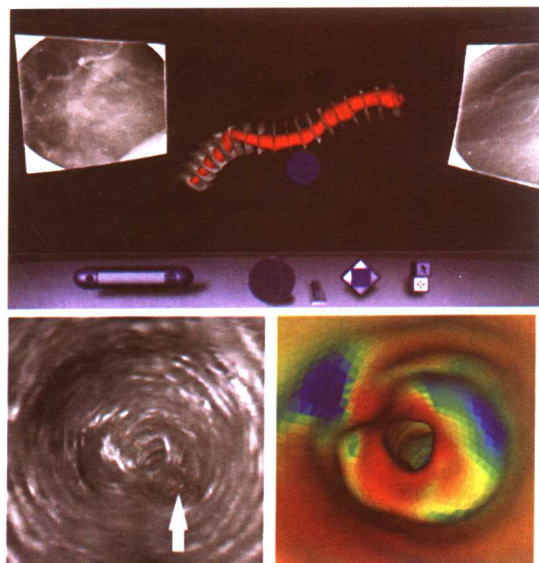
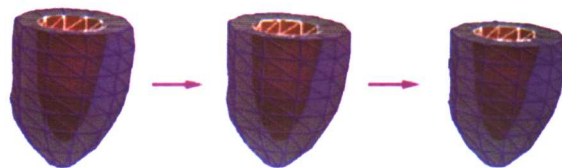


Figure 10.3.9

end-diastole



end-systole

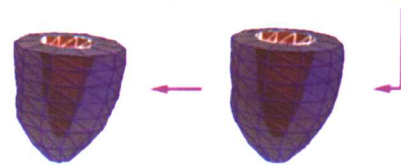


Figure 10.3.16

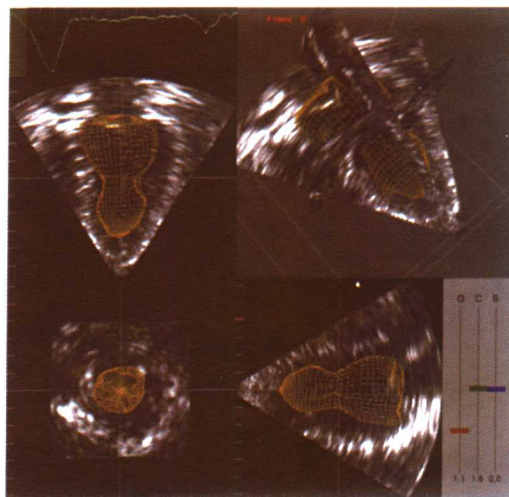


Figure 10.3.14



Figure 10.3.17

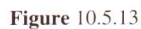




Figure 10.8.9

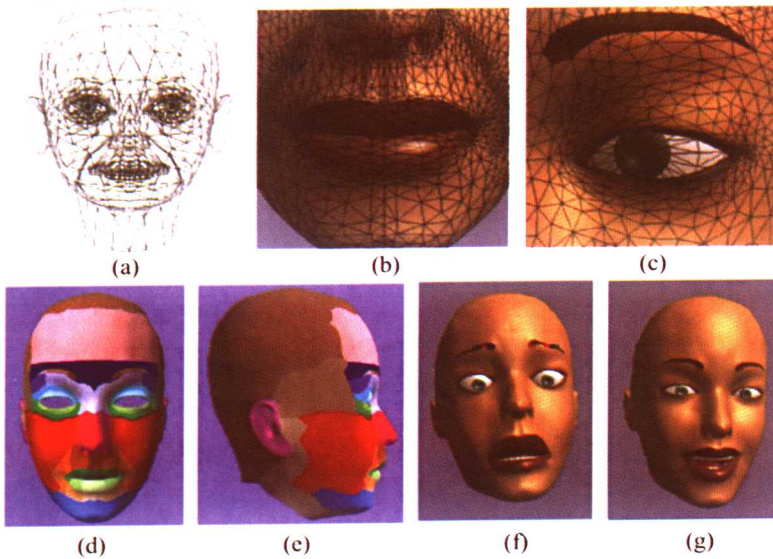


Figure 10.8.11

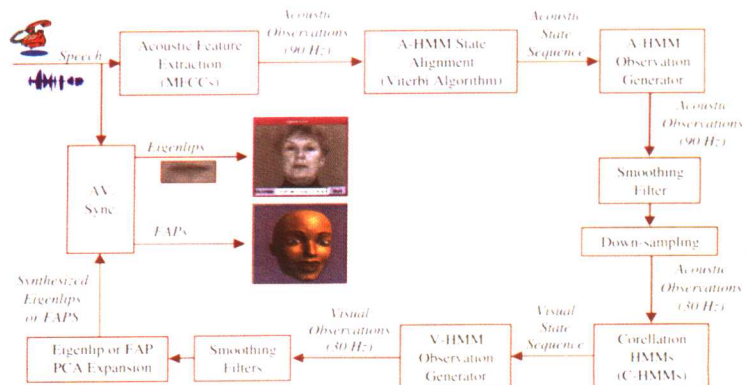


Figure 10.8.13

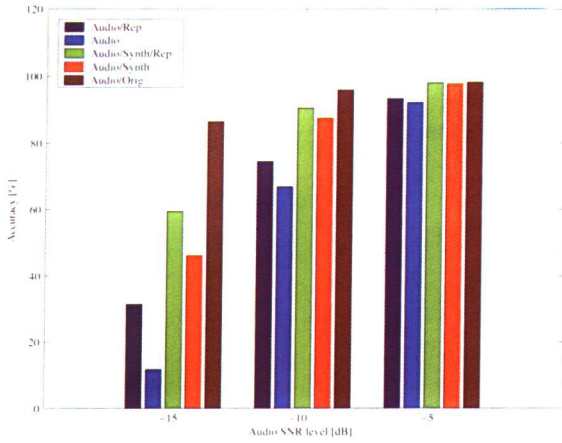


Figure 10.8.14

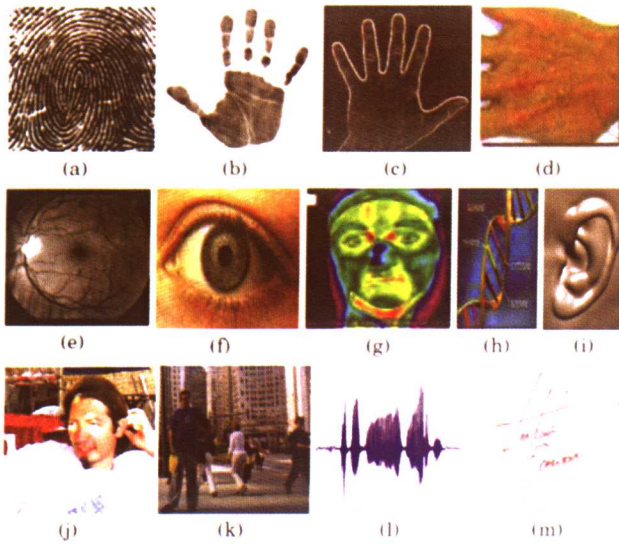


Figure 10.8.15

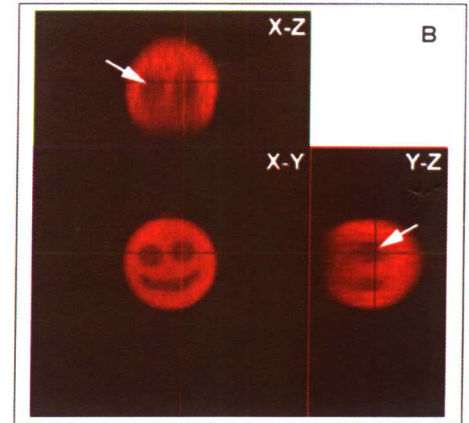
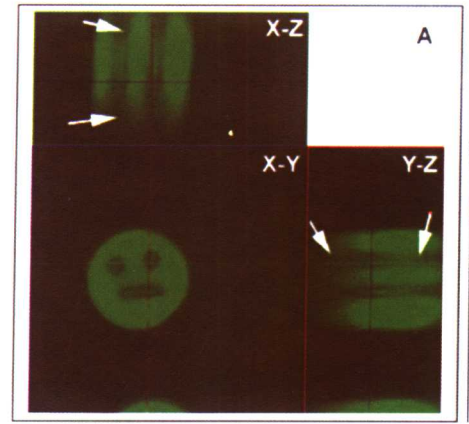


Figure 10.9.7

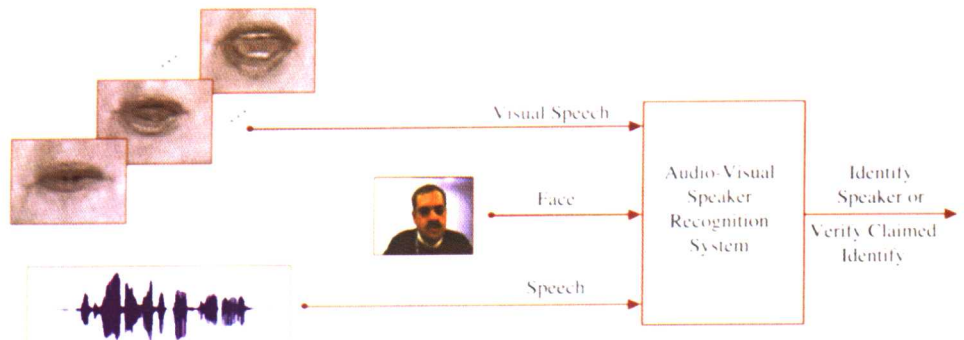


Figure 10.8.16

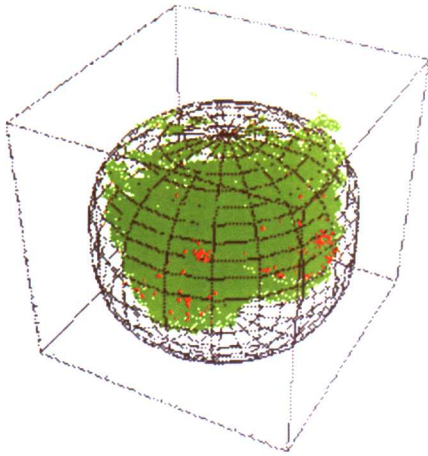


Figure 10.9.9

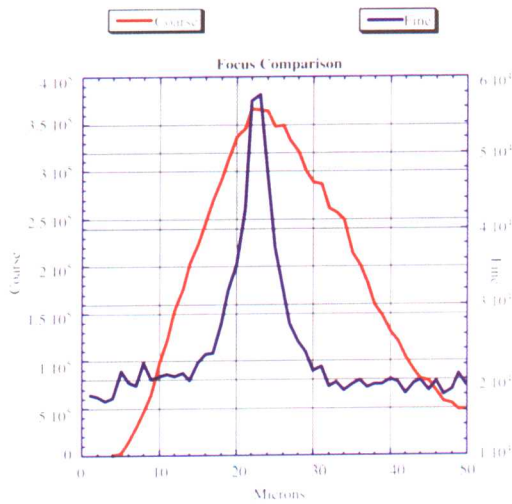


Figure 10.10.2

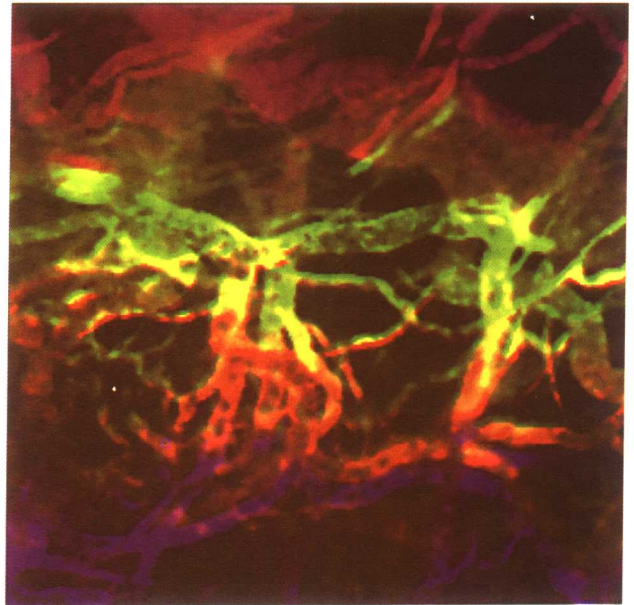


Figure 10.9.12

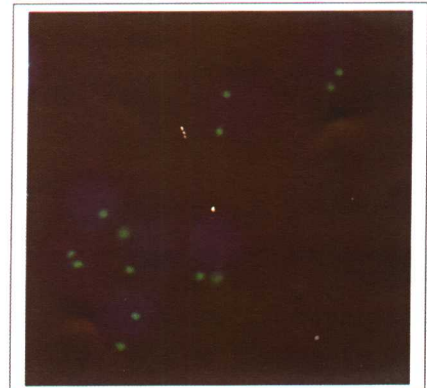
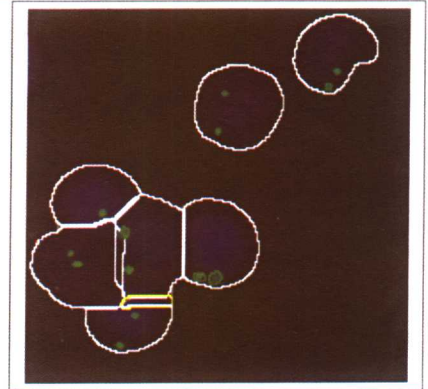


Figure 10.10.4

Scan Section Selection:

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	X	Y

Section Number: 0
 Frame Count: 0 of 15252
 Metaphases Found: 0

X Axis Factor: 0.95
 Y Axis Factor: 0.95
 Case Name:

Go To Next Section After Finding 5 Metaphases

☐ Save All Images

Figure 10.10.6



Figure 10.10.8

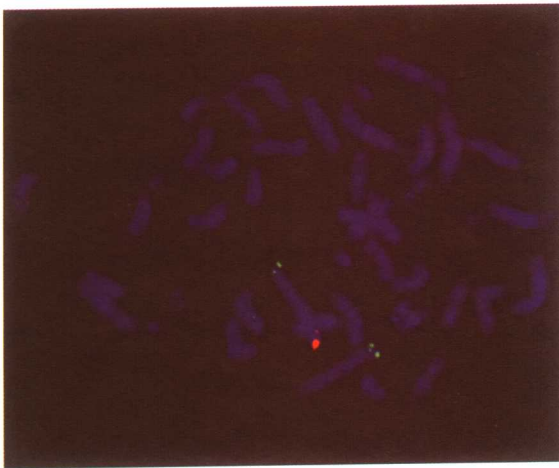


Figure 10.10.9

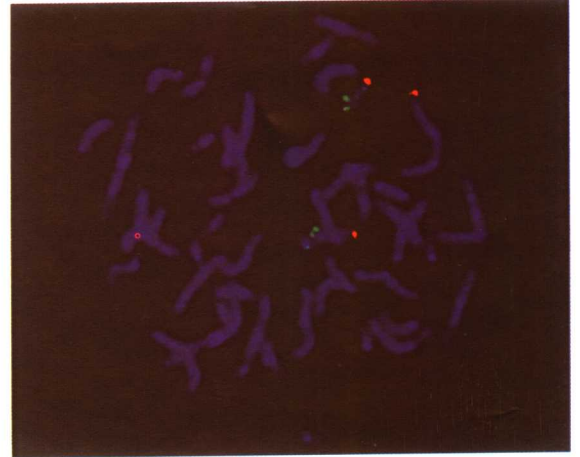


Figure 10.10.10

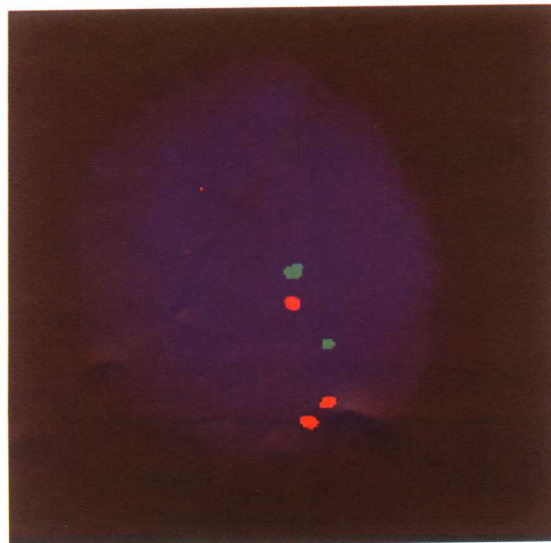


Figure 10.10.15

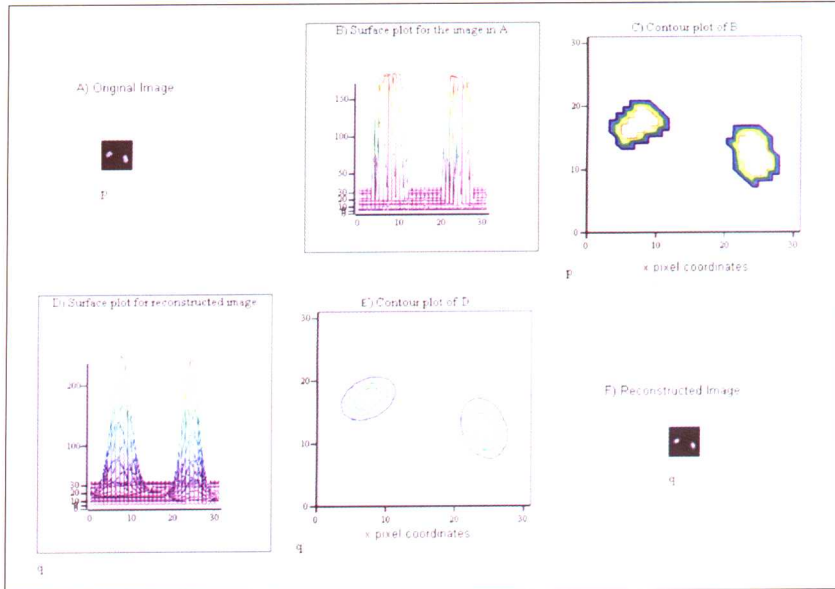


Figure 10.10.11

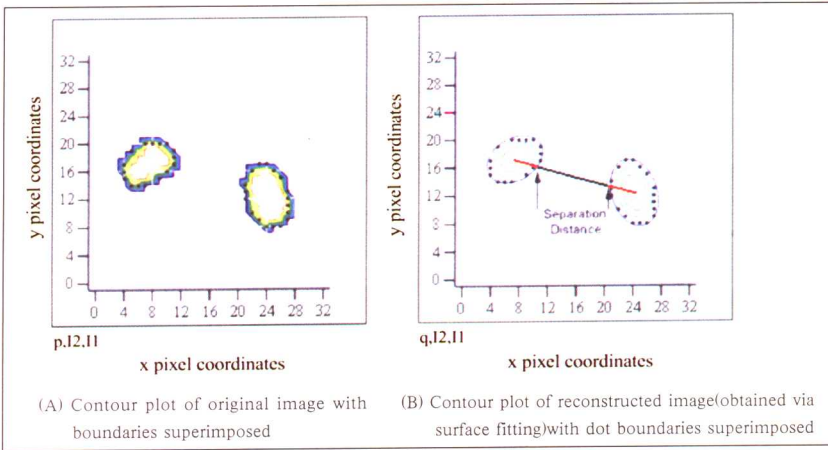


Figure 10.10.12

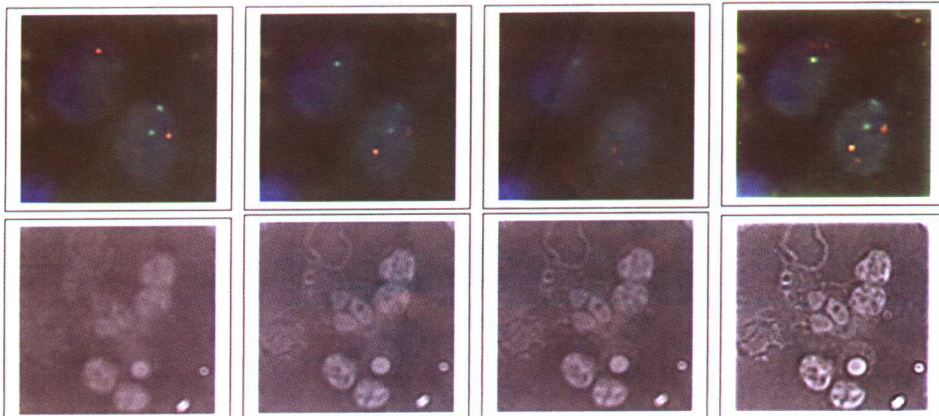


Figure 10.10.17